Thanks the reviewer again for her time. We report here in attachment the reviewer comments and our specific answers (in blue color). The recommended changes within the manuscript will be applied as soon as the open discussion will be ended.

- concerning the suggestion of plotting the difference time series, I still would prefer to see a plot of time series differences. Actually in the comparison of time series the best practice is to show both absolute (differences) and relative (ratio) scales. In my opinion showing both absolute and relative results is justified and advisable in a inter-comparison study.

We agree with the reviewer that the best option is presenting both absolute (differences) and relative (ratio) time series. We will add the following Figures in the support material:

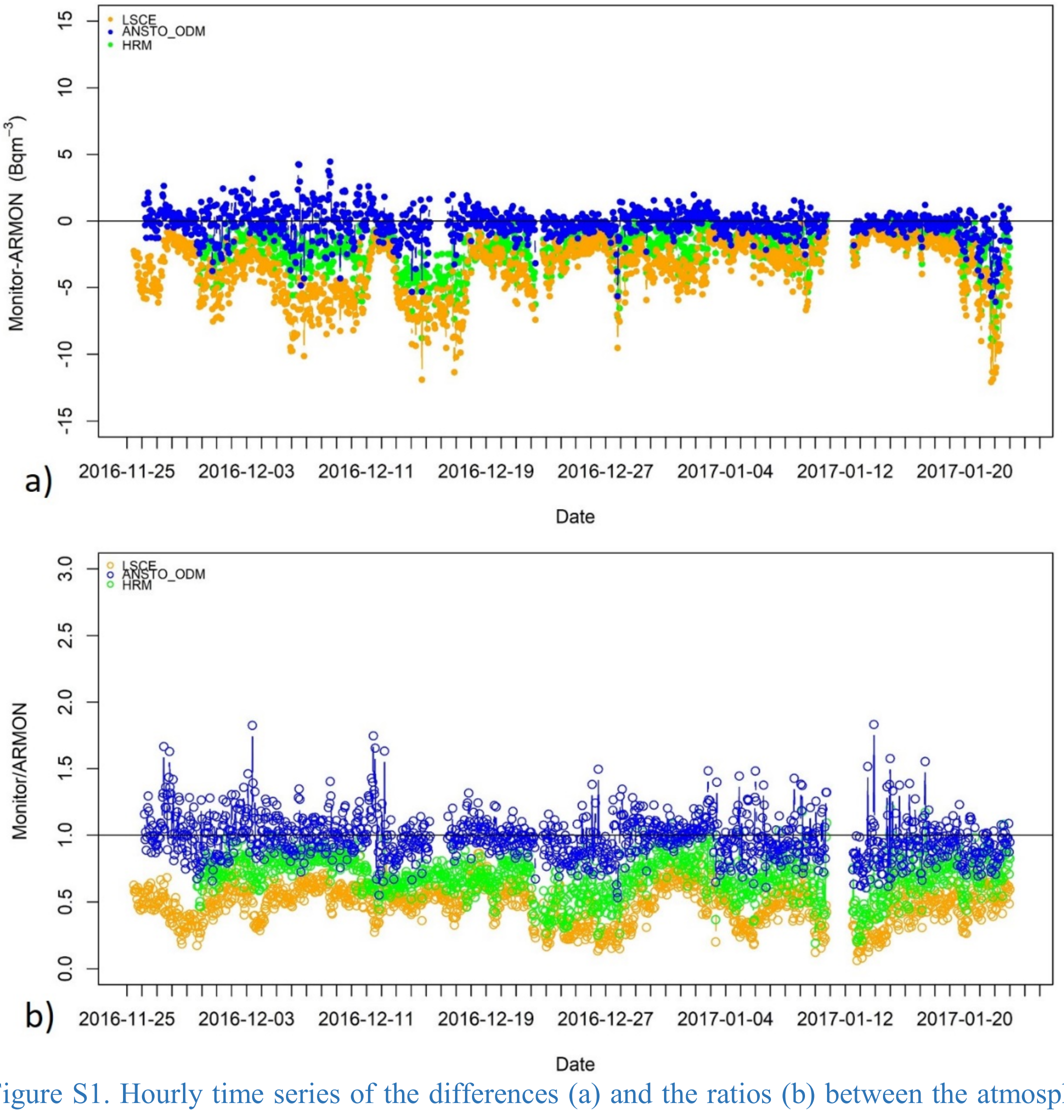

Figure S1. Hourly time series of the differences (a) and the ratios (b) between the atmospheric 222Rn or 218Po activity concentration measured by each monitor (HRM, LSCE and ANSTO_ODM) and the 222Rn measured by the ARMON at Orme de Merisiers (ODM) station during Phase I (between 25 November 2016 and 23 January 2017).

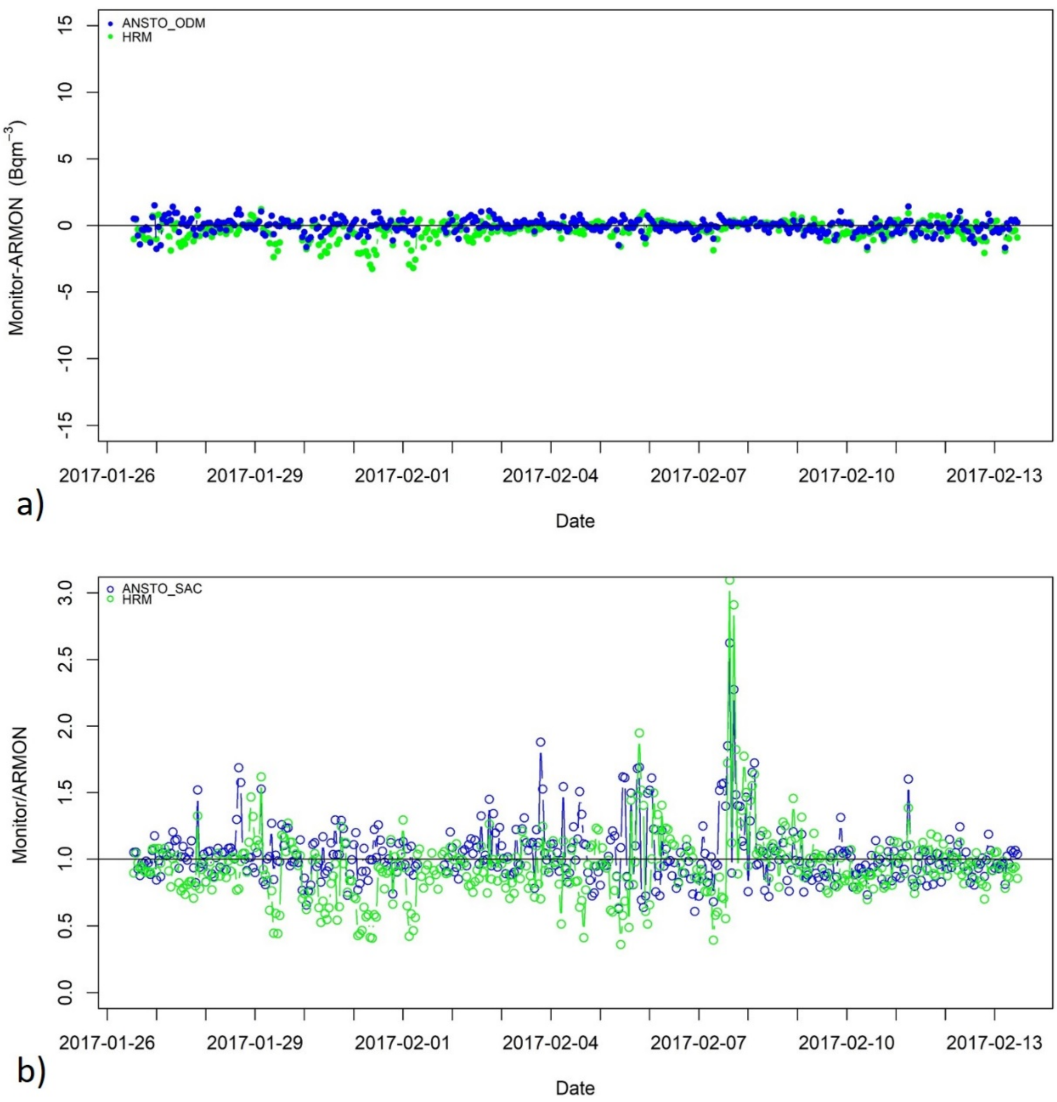

Figure S2. Hourly time series of the differences (a) and the ratios (b) between the atmospheric 222Rn or 218Po activity concentration measured by each monitor (HRM and ANSTO_SAC) and the 222Rn measured by the ARMON at Saclay (SAC) station between 25 January 2017 and 13 February 2017.

- given the relevance of the ARMON direct monitor in this inter-comparison study, its uncertainty should be clearly indicated. It is reported as 20% in Table 1, but in Figure 2 the measurements from the ARMON detector show large spikes which seem to be large than 2 Bq/m3...

The total uncertainty of the atmospheric radon concentration measured by the ARMON has been estimated to be of about 20% (k=2). This total uncertainty takes into account the uncertainty of the ARMON calibration factor F_{Cal}, the uncertainty related with humidity correction factor and the uncertainty on the net counts per minutes of detected ^{218}Po. This last one, as reported in Grossi et al., 2012 and Vargas et al., 2015, is depending from the ^{218}Po total counts and the 32% of total counts of ^{212}Po decaying in ^{212}Bi.

The ARMON has been calibrated within the INTE's radon chamber for a concentration interval ranging between 10^2 Bq m^{-3} to 10^3 Bq m^{-3} and an absolute humidity interval between $2\cdot10^2$-$2\cdot10^3$ ppm. The calibration factor F_{Cal} has an estimated uncertainty of about 10% (k=2). The ARMON calibration, as well as the calibration of the other monitors participating in the inter-comparison campaign, was linearly extrapolated for lower atmospheric radon concentration values because of the lack, so far, of a really low radon source and a robust traceability chain for low atmospheric radon concentration measurements.

The differences observed in Figure 2 and 3 of the manuscript could be due to a larger ARMON uncertainty for low atmospheric radon concentration measurements or to a smoothing effect of the ANSTO detector, due to its big volume, when fast changes occur in the atmospheric radon concentration. This should be better investigated in the next future thanks to long-term comparison campaigns and details analysis of the total monitors response uncertainties for low activity concentrations.

We have added within the manuscript three paragraphs in the methods, results and conclusion sections respectively:

'The calibration factor F_{cal} of the ARMON used in this study was of 0.39 counts per minute (cpm) per Bq m^{-3} with an uncertainty of about 10% (k=2). The total uncertainty of the atmospheric radon concentration activity measured by the ARMON takes also into account: the correction factor for the humidity influence inside the sphere was of $6.5 \cdot 10^{-5}$ per part per million H_2O (ppm) and the uncertainty of the net α counts of ^{218}Po'.

'Figure 2 and 3 show a larger hourly variability of the HRM and ARMON signals compared with the ANSTO ones. This difference in variability is attributable to the combination of a larger counting uncertainty of the HRM and ARMON detectors, and that only an approximated response time correction could be applied to the output of the ANSTO detectors (Griffiths et al. 2016). Further investigations should be carried out to clarify these differences and to exactly quantify the detectors uncertainties for the low ^{222}Rn concentrations typical for outdoor environmental monitoring at or above 100 m a.g.l. During the period of Jan 30 – February 1, 2019, the HRM shows significantly lower values than the ANSTO and ARMON. This period coincides with saturated air humidity conditions.'

'Finally, the direct ARMON seems to have a great potential for being used within atmospheric radon networks. In order to deeply evaluate the qualities and faults of this new instrument a long term inter-comparison study should be carried out using a direct ANSTO instrument.'.